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ABSTRACT

Four strategies that are useful in conducting research on experiential education programs are discussed and illustrated. These include: case studies, content analysis, use of a focused survey, and concept analysis. Each strategy addresses an issue particular to experiential education. Case studies allow data collection on a large number of variables related to an individual learner, and are useful in describing the diversity of a program's treatment in assessing individualized student outcomes. Content analysis involves the systematic classification and analysis of existing documentation. This methodology is also useful in experiential education research because it is unobtrusive. A focused survey is a questionnaire based on a theoretical framework that explores people's attitudes and experiences related to one or a few constructs. Concept analysis clarifies abstract concepts, determines their meanings, and identifies how concepts work during thought processes. Also included in the paper is an explanation of the proposed essential elements within nine dimensions of experiential education. The dimensions are as follows: purpose, setting, participants' characteristics, learning strategies, student roles, instructor roles, outcomes of learning activities, management and support factors, and program outcomes. (Author/GK)

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APPROACHES TO RESEARCH ON EXPERIENTIAL EDUCATION PROGRAMS

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APPROACHES TO RESEARCH ON EXPERIENTIAL EDUCATION PROGRAMS

Within the past five years a growing interest has arisen in conducting research and sharing findings related to experiential education programs. For example, a new special interest group for research on experiential education has been formed several months ago within the Association for Experiential Education. This interest has been stimulated by many groups. Congress and national policy analysts are concerned with identifying programs and strategies that have proven effective in helping today's disadvantaged youth to obtain employability skills. Today's educators in public and private institutions are desparately searching for ideas and techniques they can use tomorrow morning. Those concerned with new directions for education in the 80s are proposing educational reform that involves experiential learning strategies for our youth (Carnegie Council on Policy Studies in Higher Education, 1979) and are looking for research that could help guide these reforms.

Before looking at research approaches used with experiential education programs it may be helpful to provide a working definition of experiential education. As one might guess there is far from unanimous agreement as to what experiential education means.

As described in a recent review of the literature on experiential education (Druian, 1979),

> "Some research and much more hypothesizing has been directed at describing a qualitative difference between learning by direct experience (action) and learning through vicarious experiences such as reading or hearing a lecture. Coleman (1976) refers to the former

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> as 'experiential learning' and the latter as 'information assimilation.' He claims that experiential learning may abe better remembered because the memory structure includes 'sequences of action and response, which may involve no symbolic medium at all.' (p. 55) Hunt (1971 has found that many learners can profit more from a concrete level approach to instruction than from an abstract approach. Malak (1977) views experiential and traditional learning respectively as inductive and deductive learning processes. Kolb and Fry (1975) have developed a model based on similar premises starting with what they term 'concrete' experience."

In looking at experiential education, Richard Miguel (1978) describes experiential education as "...a set of planned educational experiences designed to enable learners to acquire attitudes, skills and knowledge for work and other life roles by participating in work settings."

Experiential education is often defined in terms of its context. For example, Sextor (1977) defines experiential education as meaning

> "learning activities outside the normal classroom, with learning objectives planned and articulated in advance, involving activity that is meaningful and real and on the same level as that of non-students in the same non-classroom environment, in which the learner has the assistance of another person (most often a faculty advisor) in reflecting upon the implications of the activity."

As used in this paper experiential education refers to processes of learning gained from both planned and unplanned experiences involving the learner in meaningful activities and relationships with adults. The learner is helped to examine the meaning and implications of these personal experiences for his or her future growth. In a paper describing essential elements of experiential education (Druian, Owens and Owen, 1979) the authors illustrate how these elements are manifest in three quite distinct large-scale experiential education programs--Outward Bound, Foxfire and Experience-Based Career Education. A summary of the

essential elements within nine dimensions of experiential education is shown in Table 1. These nine dimensions were developed as a comprehensive framework for viewing experiential education and the essential elements were obtained indirectly from interviews with staff representing each of these programs. This framework could serve as a comprehensive base for conducting and reporting research on experiential education.

Research, Evaluation and Knowledge Development

At the present time various writers are pushing for their favorite terms--research, evaluation or knowledge development. All three are closely related but emphasize a somewhat different purpose and audience. Research is generally construed to serve the purpose of creating generalizable knowledge, evaluation of providing information for decision making and knowledge development of providing information for future policy direction. Such distinctions are often blurred, for example, as Schubert (1980) and others contrast basic and applied research. In this paper the term research is used in the broadest sense of creating new knowledge that can contribute to improvement of educational practice, policy formation and the creation and refinement of theory.

Examples of Past Research Approaches Used at NWREL

Since 1971 the Education and Work Program of the Northwest Regional Educational Laboratory (NWREL) in Portland, Oregon has been actively involved in developing, evaluating and disseminating an experiential education program called Experience-Based Career Education (EBCE). A somewhat different version of this program has also been developed by

TABLE 1

PROPOSED ESSENTIAL ELEMENTS WITHIN

NINE DIMENSIONS OF EXPERIENTIAL EDUCATION

Program Dimensions	Essential Elements
1. Purpose	1. Purposes reflect learner needs 2. Purposes imply program content 3. Clearly shared and understood purposes
2. Setting	1. The setting is considered realistic or noncontrived by the learners 2. A physical and/or psychological challenge is provided by the setting 3. Some degree of low level risk exists 4. Diversity of settings are integrated
3. Participants' Characteristics	1. Voluntary participation 2. Diversity of participants
4. Learning Strategies	1. Relates to one or more theories of learning 2. Encourages young people to perform tasks normally permitted only adults in our society 3. Emphasizes a balance of action, reflection and application 4. Provides learning experiences that are individualized, sequential and developmental 5. Involves frequent structured interaction between student and instructor 6. Provides opportunities for unplanned learning from new experiences
5. Student Roles	1. Active student role in planning and carrying out activities 2. Chance to experience various roles (e.g., leader, team member, employee, tutor) 3. Assuming responsibilities for his/-her actions 4. Opportunity to interact with various adults as well as with peers

TABLE 1
(Continued)

Program Dimensions	Essential Elements
6. Instructor Roles	1. Help students plan and carry out their activities 2. Role model as an active, involved learner 3. Monitor progress, assess and feed information back to students 4. Motivation and encouragement 5. Plan and implement a student accountability system 6. Skills in planning, empathy, communications and resource sharing
7. Outcomes of Learning Activities	1. Outcomes of learner activities are perceived as real and important by students and others 2. Students feel ownership for the outcomes
8. Management and Support Factors	1. Locating community resources for student learning 2. Forming positive relationships with external agents (such as may be needed in awarding regular school credit for program participation) 3. Obtaining funding and community support 4. Recruitment and selection of staff who are committed to using experiential learning strategies
9. Program Outcomes	1. Increased student self-confidence and ability to relate to others are common student outcomes 2. Staff and students are involved in assessing effectiveness of program 3. Openness to looking at both positive and negative outcomes and in examining areas for program improvement

three other regional educational laboratories through funding provided by the National Institute of Education.[1] NWREL's initial development of EBCE occurred in Tigard, Oregon with a program locally called Community Experiences for Career Education $(CE)_2$.

$(CE)_2$ is composed of approximately 60 high school juniors and seniors and provides a comprehensive high school education through experiences in the community. A primary goal of the $(CE)_2$ program has been to integrate a student's knowledge of a variety of careers with the acquisition of cognitive, interpersonal and affective skills through a series of planned experiences with identified learning outcomes. Emphasis is placed on the assumption of individual student responsibility for his or her own learning.

From 1975 to 1977 NWREL's version of EBCE was carefully pilot tested in five locations in the Northwest. Since that time EBCE has been implemented successfully through the four laboratories in all 50 states and currently enrolls over 20,000 high school youth. Numerous research strategies have been used with EBCE that may have general applicability to other experiential education programs. For example, in a paper entitled "The Use of Multiple Strategies in Evaluating An Experience-Based Career (Owens, Haenn and Fehrenbacher, 1979),

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[1]An EBCE program has also been developed, pilot tested and disseminated by the Appalachia Educational Laboratory, Inc., in Charleston, West Virginia; Far West Laboratory for Educational Research and Development in San Francisco, California; and Research for Better Schools, Inc. in Philadelphia, Pennsylvania.

eleven evaluation strategies that have been used with EBCE are described, the strengths and limitations of each strategy are assessed and ways of integrating and communicating findings are proposed.

In this paper I'd like to discuss and illustrate four strategies that appear particularly useful in conducting research on experiential education programs. These strategies are student case studies, content analysis, use of a focused survey and conceptual analysis. Each of these strategies is particularly helpful in addressing different issues faced in experiential education. These methodologies will first be described and then examples will be given of how they were carried out.

Description and Rationale for Each Approach

Student Case Studies

Physicians, lawyers, psychologists and anthropologists have each developed procedures and models for preparing case studies that meet the needs of their professions. In experiential education, a case study approach can be most useful by allowing us to plan and collect data on a large number of variables related to an individual learner. Narratives can be prepared describing why a particular student entered a program, the experiences a young person has in the program, his or her feelings about these experiences, how they interact with staff, students and other persons participating in the program such as employers, and what the student has learned from the program experiences.

Student case studies allow the researcher to collect systematically comprehensive data from many sources about one or more individual

students within a framework that allows the researcher to present a holistic view of the individual or the program.

Student case studies are particularly appropriate in experiential education programs as a tool in describing the diversity of a program's treatment and in assessing individualized student outcomes. They can be used to portray the activities in which certain students were actually engaged, their reactions to these activities and the effects that these activities produced (including student products and change in attitudes or behaviors). These individual case studies can also serve to generate important hypotheses that could be tested later in confirmatory research. As a tool case studies can help to document the amount of time and help given to specific students, portray areas of student growth not able to be assessed with group tests or other paper and pencil instruments, and provide cross-validation to other types of data that have been collected.

In many cases the student outcomes most valued in an experiential program are those that are very difficult or impossible to assess with group-administered instruments. Examples of such outcomes include student increase in self-understanding, improved interpersonal communications, motivation to learn, ability to integrate new experiences with prior knowledge, willingness to take risks and an increase in ability to communicate comfortably with adults.

Content Analysis

Content analysis involves the systematic classification and analysis of existing documentation. Since experiential education programs are often highly individualized and involve students producing diverse products that reflect their learning, it is often important to transform existing file data into a form usable for testing certain hypotheses about experiential learning. Student-produced documents, records of program activities, classifications of employer sites used in the community and minutes of advisory council meetings are but some of the documents that can be content analyzed. This methodology is also useful in experiential education research because it is unobtrusive.

Focused Survey

A focused survey is considered here as a questionnaire based on a theoretical framework that explores people's attitudes and experiences related to one or a few constructs. It can contain both open-ended and fixed response items. The focused survey differs from many program evaluation questionnaires because the latter generally lack a theoretical framework and attempt to assess the respondent's knowledge or attitudes about a wide variety of program objectives. Researchers working in experiential education sometimes choose to use case studies to generate hypotheses that can then be tested through other strategies such as the use of a focused survey completed by a large number of students.

The NWREL researchers have been especially interested in learning more about the nonclassroom settings in which experiential learning can often

occur. In EBCE the important nonclassroom setting is the employer or community site where young people go to explore careers and conduct learning projects. Therefore, a survey questionnaire was developed, pilot tested and then administered to over 1,000 EBCE students throughout the country to determine their perceptions of factors that distinguish excellent learning experience at employer sites from those factors that lead to little or no learning at such sites. Using a social learning theory framework we also sought to find out what happens at employer sites that contributes to an excellent learning experience and what various categories of youth actually learn from such experiences.

Concept Analysis

Various evaluations of experiential programs in the past decade have indicated that a significant outcome has been that young people develop a greater sense of responsibility as a result of participation in such programs. Unfortunately, however, there is not a clear understanding of what is meant by responsibility. A new study begun last year at NWREL centers on clarifying what is meant by responsibility as a learner outcome of experiential education. This study has led us to explore the methodology of concept analysis as described by two philosophers, Robert Gowan of Cornell University and Thomas Green of Syracuse University. In the paper "Philosophy as a Metaphor for Evaluation" (Gowan, 2979) concept analysis is described as serving "to clarify abstract general concepts, to determine what meaning or different meanings such concepts have and to see how such concepts work when we are seriously and deliberately thinking" (pp. 31, 32). Gowans's paper also reviews ten steps for applying techniques of concept analysis. A major part of concept

analysis involves the collection and sorting of numerous examples of the concept under study. Cases are identified that are considered model, contrary and borderline to the concept being explored. This methodology is particularly appropriate in exploratory research on experiential education outcomes because there is generally lacking a clear understanding of what is meant by such outcomes as responsibility, employability or career maturity.

Illustrated Application of Each Approach

Student Case Studies

As the monograph Experiential Education Issues and Guidelines (Miquel, Coleman and Wasson, 1978) points out, there are many problems remaining in doing research or evaluation of experiential education programs. One of these is that instruments, sensitive to individualized outcomes resulting from experiential learning, seldom exist. In NWREL's research on experiential education we have used and will continue to improve on a variety of such measures. The following excerpt from the Fehrenbacher, Owens, Haenn (1979) article describes approaches to student case studies done with the EBCE demonstration site.

Because case studies can result in the accumulation of vast amounts of data that become difficult to analyze and integrate, the EBCE staff felt it important to establish focal points for the case studies prior to data collection. These focal points were used to organize and reduce data and include:

1. Student decision points (e.g., Why did the student choose EBCE over other alternative programs?)

2. Role relationships with peers, staff and employers (e.g., How do the student's relationships with the EBCE staff compare with former relationships with the regular high school staff?)
3. Student ability to see relationships in what they are experiencing (e.g., Do the students perceive their experiences at the employer site fitting in with what they are doing at the learning center?)
4. Student ability to match personal qualities with career demands (e.g., How do the students perceive their current ability in Basic Skills in relationship with those skills required for the job they are exploring?)
5. Student ability to relate current learning to future vocational and educational plans (e.g., How do students' learning experiences fit into their plans for the future?)

In addition to organizing data around prespecified focal points, the researchers also sorted and analyzed data to detect patterns of attitudes or behaviors in each student. These patterns were then further investigated to determine how they relate to the students' backgrounds and what impact, if any, the EBCE program had on them. For example, one student entered the program with behavior indicative of low self-esteem and little self-confidence. The researchers focused on these behaviors and on program activities that might affect them.

Because the case-study approach does not lend itself to traditional data validation techniques, it relies heavily on the judgment of the researcher to select pertinent data for inclusion in the report, and to

disregard less pertinent data. This opportunity for bias must be recognized and steps taken to minimize it. As case-study data were assembled, the reliability and validity of the information were assessed by comparing researcher's observations with those of employers, parents, staff and the student and with data collected by other research methodologies.

After the narrative was synthesized for each student studied, one final kind of empirical data was collected. The students were asked to read the draft of their own case studies and to reflect on the accuracy of fact and of interpretation. In all cases the students found that the narratives did reflect their experiences and few changes were suggested.

When the case-study narratives were complete, judgments by two researchers about the program's interactions with each student were then offered. In order to provide a balanced interpretation of the data, a visiting researcher from out-of-state was asked to review the raw data and interpretations of the case study in a critical manner, looking specifically for the writers' biases and any unwarranted conclusions. All questionable conclusions or omissions were challenged. If they could not be supported by empirical evidence, they were dropped from the report. More generalized conclusions about the EBCE program were also formulated after reflecting on all six case studies.

Since the early evaluations of the EBCE demonstration program, the program has been adapted to various special populations of students. Staff in various EBCE settings involving migrant, black, disadvantaged

and gifted and talented students have been asked to keep a biweekly student case study log on a sample of students in their program. The logs were organized around a conceptual framework of experiential learning. Staff were asked to record about the sampled students factual descriptions of events and behaviors related to such areas as the influence of adult role models, opportunities for unplanned learning, student acceptance of personal responsibility and natural consequences, and student sharing or reflecting on their personal experiences. In addition to obtaining factual descriptions of these incidents, staff were also encouraged to record subjective comments that may help interpret what happened or its significance.

Content Analysis

In EBCE content analysis was applied to four types of data: 1) student projects and written reports, 2) student records of program activities begun and completed, 3) the list of employer sites used with $(CE)_2$ and 4) $(CE)_2$ Board minutes.[1]

The Life Skills projects and resulting written reports for each of the six case study students were retained by the learning managers throughout the year and given to the NWREL evaluation unit for analysis. The evaluators identified 12 criteria they wished to apply to each student project. These criteria included the extent to which Basic Skills work was integrated into the project, the extent to which the project fit a student's interest areas, and the extent to which the project met the

[1]This account is taken from the Owens, Haenn, Fehrenbacher (1979) reference.

objectives for the Life Skills area in which it was written. A two-page written description of each student was prepared together with a rating guide involving a five-point scale for each criterion. An experienced high school curriculum director not familiar with EBCE was hired as a consultant and spent four days applying the criteria to each case-study student's projects. The consultant's ratings were keypunched and analyzed for descriptive statistics and an assessment of the general areas of strengths and weaknesses of projects in each of the five Life Skills areas was reported.

Student records of program activities begun and completed were recorded by the project staff and provided to the evaluators for analysis. These data allow the evaluators to learn the average length of time needed to complete projects and other activities, the competencies most and least frequently completed and, on a time trend basis, to determine the pattern of program activity completion over the course of the entire school year.

The list of cooperating employer sites was analyzed and categorized into the 15 U.S. Office of Education occupational clusters in order to see which clusters were most and least heavily represented and to determine if any clusters were not represented.

The monthly $(CE)_2$ Board minutes were analyzed to determine the content nature (and frequency) of the Board's discussions and to determine whether most of the time was spent by the Board in listening to progress reports, discussing operations or discussing policy recommendations. The results of this analysis were displayed by month and indicated that the Board was, in fact, a policy making Board.

Focused Survey

A review of the literature on experiential learning convinced us that a foundation exists upon which to design a focused survey. John Dewey (1950) has pointed out that not all experiences are learning experiences. Combs, Avila and Purkey (1971), Geiger (1970) and others have identified factors which may cause some experiences to be low in learning potential. Bandura (1977) and others writing about Social Learning Theory have also identified factors reported to be related to increased learning such as modeling and reinforcement. Using a critical incidents technique, open-ended questions and rating scales based on propositions derived from various theories on experiential learning, a questionnaire was designed.

The 1978 Experiential Learning Questionnaire was administered to 218 students in eight EBCE programs covering five states--Alaska, Georgia, Michigan, Oregon and Washington. The EBCE students were used as the sample for this study since each student is usually involved in career explorations or learning levels at three to six community sites. Thus the same students would have been exposed to various sites and would be in a good position to assess qualities associated with locations providing excellent or poor learning experiences.

Findings from the 1978 study were interesting enough to motivate us to expand our study. Conceptually we decided to incorporate item responses that represent propositions derived from attribution theory. Briefly, "attribution theory" is a term given to various theories concerned with the problem of investigating causal perception (Shaver, 1975). Factors

borrowed from this theory for our instrument include ability, effort, task difficulty and luck.

Other changes made in the 1979 study were to expand the number of surveyed EBCE student participants to over 1,000, to use a sample of high fidelity EBCE sites representing all four laboratories' versions of EBCE, to include sites with substantial minority student enrollment and to select sites that provided a balance of geographic locations throughout the United States.

Findings from this study are being analyzed to determine if young people's perceptions of excellent and poor learning experiences at employer sites differ depending on a person's sex, race, grade level, academic abaility, occupational preference or length of time spent in an experiential program. These appear to be important questions to address if we in experiential education are going to improve learning opportunities for young people.

Concept Analysis

In a session of the 1979 NWREL EBCE Conference an initial attempt was made to obtain from practitioners numerous examples of student behavior that staff felt reflected high or low levels of responsibility. Our intention was to then analyze these critical incidents to develop or test several frameworks for classifying responsibility and by so doing, to develop a working definition of responsibility. The obtaining of numerous examples of students behaving in a way that reflected high or low levels of responsibility was not too successful because we failed to

elicit an adequate number of examples of high level responsible behavior although we collected numerous examples of nonresponsible behavior. This may simply reflect the fact that staff are often preoccupied in working with students who fail to show up as scheduled, complete assignments on time or take responsibility for notifying employers when they will be late in arriving at an employer site. We plan to structure future brainstorming sessions differently and perhaps use groups of staff, employers and students.

By pursuing research on what it means for a young person to develop a sense of responsibility we hope to eventually construct a developmental hierarchy of levels of responsibility, help identify experiential strategies that staff can use in increasing a student's level of responsibility and develop better methods of assessing responsibility. Concept analysis procedures can be a valuable strategy for conducting this type of research.

Summary

Today there is a growing demand from educational practitioners, legislators and federal agencies for evidence that new youth programs are accomplishing their purposes. There is also an increasing desire to learn what strategies are particularly effective in helping certain categories of youth, especially those who are turned off to traditional educational settings. Research on experiential education programs is expected to provide answers to help practitioners improve their work with yougn people and at the same time to contribute to developing or refining theories of experiential learning.

A number of strategies are being used in conducting research on experiential education. Examples of four strategies that have been or are being used in the Education and Work Program at the Northwest Regional Educational Laboratory in their research on experiential education were discussed. These strategies involve the use of student case studies, content analysis, focused surveys and conceptual analysis. As researchers in experiential education work more closely to share their methodologies as well as their findings, we will be beginning to build an inventory of useful strategies that will enhance the success of our efforts.

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